

CLAIMS

1. Control device for supplying an electric motor with IMS technology or the like, characterised in that it provides:
 - 5 - a two-phase or three-phase inverter, on at least two phases a metal path being provided obtained in IMS technology on the inverter power circuit and each one in series with a motor phase;
 - a thermal sensor for at least one of said paths
10 preferably but not necessarily placed on the metal path itself to perform the measure of its temperature that will also be used for measuring the power transistors temperature.
2. Control device for supplying an electric motor with IMS
15 technology or the like, characterised in that it provides:
 - a DC controller equipped with a metal path obtained in IMS technology on the controller card and in series with the motor armature;
 - 20 - a thermal sensor preferably but not necessarily placed on the metal path to perform the measure of its temperature that will also be used for measuring the power transistors temperature.

3. Control device for supplying any electric motor realised in IMS technology or the like, characterised in that it provides:

- an integrated power module equipped with at least one metal path in series with the power devices or with an external connection terminal;
- a thermal sensor preferably but not necessarily placed on the metal path to perform the measure of its temperature that will also be used for measuring the power transistors temperature.

4. Process for measuring the phase currents of an inverter or a DC controller for supplying electric motors characterised in that it provides for measuring the temperature of at least one metal path realised in IMS technology (or the like) as elongation of a connection path between power or adduction devices towards outside and for compensating the voltage drop due to thermal drift of metal path resistivity through software computation and then having the exact phase current measure.

5. Process according to claim 4 characterised in that it provides for measuring the output current of a power module (Power Semiconductor Module) by measuring the temperature of a metal path realised in IMS or DBC technology or the like as elongation of a connection path

between power or adduction devices towards outside and for compensating the voltage drop due to thermal drift of metal path resistivity through software computation and then having the exact phase current measure.